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**Notes:**

1. Untranslatable words are replaced with asterisks (\*\*\*).
2. Texts in the figures are not translated and shown as it is.

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## FULL CONTENTS

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### [Claim(s)]

#### [Claim 1]

A remote control system comprising:

A hot-water supply machine which supplies hot water to apparatus.

A remote control of said hot-water supply machine.

remote control system \*\*\*\* which consists of one or more servers linked to said remote control -- a means of communication which performs communication between said remote control and said server.

Said hot-water supply machine, a means of communication between apparatus which performs communication between said remote controls, and an apparatus setting means for using a means of communication between said apparatus, and performing a connection setup and a test run of said apparatus, said hot-water supply machine, and said remote control, The completion information transmission means of a setting for transmitting the completion of a setting by said apparatus setting means to said server using said means of communication, when a setup of both said remote control, a network setting means to perform a connection setup of said server, and said apparatus setting means and said network setting means is completed.

#### [Claim 2]

The server side means of communication for a server to communicate with a remote control, and the server side encryption and a decoding means for protecting the contents of communication, Have an attestation character string recognition means for recognizing that it is communication from said remote control, and, [ said remote control ] The remote control side means of communication for communicating with said server, and the remote

control side encryption and a decoding means for protecting the contents of communication, It has an attestation character string presentation means for telling that it is communication from said remote control to a server, The remote control system according to claim 1, wherein said server can perform client attestation by submitting attestation information from said remote control after communication by said server side encryption / composite-ized means, and the remote control side encryption and a decoding means is established.

[Claim 3]

The remote control system according to claim 2 enabling connection also with a server which equips a remote control with an attestation information change means, and is not provided with encryption / composite-ized means by changing presentation existence of attestation information for every connection place.

[Claim 4]

A remote control system given in Claims 2-3 any 1 paragraph characterized by enabling dynamically change of a server which needs attestation information because equip a remote control with an attestation server update means required and attestation updates a required server list.

[Claim 5]

A program for performing a part or all of a function that the remote control system according to any one of claims 1 to 4 has by computer.

[Claim 6]

A recording medium which recorded the program according to claim 5 and in which computer reading is possible.

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[Detailed Description of the Invention]

[0001]

[Field of the Invention]

This invention relates to the remote control system which added the function connected to hot-water supply machines, such as a gas hot-water supply machine, an oil hot-water supply machine, an electric water heater, a heat pump water heater, etc. which use electricity for control, through a network to a server.

[0002]

### [Description of the Prior Art]

An example (for example, refer to patent documents 1) of the remote control system currently used from the former is explained using drawing 5. As for a hot-water supply machine and 503, in drawing 5, 501 is [ a server and 505 ] telephone line networks a remote control and 504 apparatus and 502. The remote control 503 communicates with the apparatus 501 or the hot-water supply machine 502, and controls operation of the apparatus 501 or the hot-water supply machine 502. The server 504 can control the remote control 503 by communicating through the remote control 503 and the telephone line network 505, or can acquire the state etc. of the hot-water supply machine 502 which the remote control 503 grasps.

[0003]

[Patent documents 1]

JP,2002-176681,A (7 pages, Fig. 1)

[0004]

[Problem to be solved by the invention]

Although said conventional remote control system has the following problems, it is not conventionally indicated in patent documents. That is, since two or more baths and hot-water supply faucets are connected to a hot-water supply machine and a piping connection form changes with states of the house installed, when installing a hot-water supply machine, it is certainly accompanied by installation construction. In the newly built apartment where the Internet access environment which is spreading in recent years was prepared, the network construction which installs network associated equipment, such as HUB, a router, etc. which are used in order to connect with a server physically, is needed. Here, since there is no telling which ends previously the network construction about the installation construction about a hot-water supply machine and network connection, it is very difficult construction to fix an order of a setup. After hot-water supply machine installation construction and network connection construction, the network setting work for using the apparatus installed by construction from a remote control system and hot-water supply machine setting work are needed. For example, network setup includes selection of an IP address grant method, a subnet mask setup, a DNS setup, a connection place URL list setup, etc. Hot-water supply machine setup includes the normal operation check of the apparatus connected to a remote control, instructions of a remote control screen, a setup of whether

the apparatus which actually operates is the same, the check of whether apparatus operates as an instruction, correction, etc. Since expertise for a network setup and a setup of a hot-water supply machine to perform construction and a setup differs as mentioned above here, The problem that the function to perform independently that does not have few cases where a different worker performs installation operation, and installation operation, and the function which notifies the completion of a setting to a server after the end of both setup is completed were called for occurred. It is possible there to be no method of checking whether since it only notified to the server when network construction and setup were completed, it is that construction and a setup of a hot-water supply machine are completed, and to overlook un-constructing and un-setting up up of a hot-water supply machine conventionally, when the worst.

[0005]

Since these information is easily acquirable under supervising wording of a telegram, it will have fake information easily passed from a personal computer etc., although individual recognition is carried out by the self-specific number which combined apparatus classification and an equipment number when a remote control performs communication of information to a server. Therefore, after transmitted wording of a telegram enciphered not understanding simply, the problem that the function to tell having connected with a server from the remote control was called for occurred.

[0006]

When connecting with the server which does not need to attest that it is communication from a remote control like the information site which everyone can peruse, In order to protect from a remote control that the attestation character string which tells having connected with a server flows carelessly, the problem that the function connected without using an attestation character string presentation function was called for occurred.

[0007]

When the service provided from a server increased, the problem that the function which updates dynamically the server which needs to tell having connected with a server from the remote control was called for occurred.

[0008]

[Means for solving problem]

In order to solve said conventional problem, [ the remote control system of this invention ] When the completion of a setting of an apparatus setting

means and a network setting means is supervised and both setup is completed by the completion information transmission means of a setting, it is considered as the remote control system which can be worked independently by each setting worker in operating so that the completion of a setting may be transmitted to a server.

[0009]

[Mode for carrying out the invention]

The hot-water supply machine with which the invention indicated to Claim 1 supplies hot water to apparatus, and the remote control of said hot-water supply machine, remote control system \*\*\*\* which consists of one or more servers linked to said remote control, [ means of communication / said remote control and / which performs communication between said servers ] Said hot-water supply machine, the means of communication between apparatus which performs communication between said remote controls, and the apparatus setting means for using the means of communication between said apparatus, and performing a connection setup and test run of said apparatus, said hot-water supply machine, and said remote control, Said remote control and a network setting means to perform a connection setup of said server, [ by considering it as a remote control system provided with the completion information transmission means of a setting for transmitting the completion of a setting by said apparatus setting means to said server using said means of communication, when a setup of both said apparatus setting means and said network setting means is completed ] When the completion of a setting of an apparatus setting means and a network setting means is supervised and both setup is completed by the completion information transmission means of a setting, The remote control system which can be worked independently by each setting worker in operating so that the completion of a setting may be transmitted to a server can be provided.

[0010]

The server side means of communication for said server to communicate with said remote control in the invention indicated to Claim 2, Have the server side encryption and the decoding means for protecting the contents of communication, and an attestation character string recognition means for recognizing that it is communication from said remote control, and, [ said remote control ] The remote control side means of communication for communicating with said server, and the remote control side encryption

and the decoding means for protecting the contents of communication, [ submitting attestation information, after having an attestation character string presentation means for telling that it is communication from said remote control to a server and establishing communication by said server side encryption / composite-ized composite-ized means, and the remote control side encryption and a decoding means ] When said server considers it as the remote control system which can perform client attestation, After establishing encryption communication by encryption and a decoding means, it can protect that fake information is passed from a personal computer etc. easily by notifying a server that it is communication from a remote control by the attestation character string presentation means which shows that it is communication from a remote control.

[0011]

It is the invention indicated to Claim 3 equipping a remote control with an attestation information change means, and changing the presentation existence of attestation information for every connection place, [ by considering it as the remote control system enabling connection also with the server which is not provided with encryption / composite-ized means ] When connecting with the server which recognizes the connection of those other than the server for which a remote control needs attestation, and does not need attestation by an attestation information change means, attestation character string disclosure can be protected from a remote control by connecting with a server, without submitting attestation information.

[0012]

It is that the invention indicated to Claim 4 equips a remote control with an attestation server update means required, and attestation updates a required server list, [ by considering it as the remote control system enabling dynamically change of the server which needs attestation information ] An attestation server list required with required telling having connected with a server from the remote control by an attestation server update means required is downloaded from a server, When connecting with the server in this attestation server list required, the server which needs attestation information can be dynamically changed by submitting an attestation character string.

[0013]

The invention indicated to Claim 5 is considering a part or all of the

function that a remote control system has as the program for performing by computer.

[0014]

The invention indicated to Claim 6 is taken as the recording medium of a program and data which contains either at least.

[0015]

And since it is a program, some or all of remote control systems of this invention is easily realizable using computer \*\* at a home, etc. Distribution of a program can be simply performed by recording on a recording medium or distributing a program using a communication line.

[0016]

[Working example]

(Working example 1)

Drawing 1 shows the block diagram of the remote control system in the first working example of this invention. In drawing 1, apparatus and 102 for 101 a hot-water supply machine and 103 a remote control and 104 A server, 105 the remote control side means of communication and 106 the server side means of communication and 107 The means of communication between apparatus side apparatus, 108 -- as for a network setting means and 112, the means of communication between remote control side apparatus and 110 are [ a remote control control means and 114 ] displaying means the completion information transmission means of a setting, and 113 an apparatus setting means and 111 the means of communication between hot-water supply machine side apparatus, and 109.

[0017]

In a bath and the hot-water supply machine 102, at a gas combustion machine and the server 104 at the apparatus 101 A workstation, The LAN card which carries out TCP/IP communication to the remote control side means of communication 105 and the server side means of communication 106 via the Internet etc., To the means of communication 107 between apparatus side apparatus, the means of communication 108 between hot-water supply machine side apparatus, and the means of communication 109 between remote control side apparatus, a serial means of communication, This composition is easily realizable for the apparatus setting means 110, the network setting means 111, the completion information transmission means 112 of a setting, and the remote control control means 113 at a

microcomputer and the displaying means 114 by using the touch panel in which a display to a user and an operation receptionist are possible.

[0018]

A hot water floor heating apparatus, a bathroom drier, etc. which function using the warm water generated with the hot-water supply faucet or the hot-water supply machine 102 besides a bath can be used for the apparatus 101. A gas hot-water supply machine, an oil hot-water supply machine, an electric water heater, a heat pump water heater, etc. which use electricity for control can be used for the hot-water supply machine 102.

[0019]

Hereafter, operation of this example is explained. When a remote control system starts operation, the server 104 is operated first. Next, if installation of the remote control 103 is completed and operation of the remote control 103 is started, the remote control control means 113 will display the navigational panel of the apparatus 101, and the interface button of apparatus connection and a network setup on the displaying means 114 based on the program built in. \*\* by which a user pushes the displayed button, and the remote control control means 113 make the operation assigned to each button start.

[0020]

Even when a network connection setting worker comes for a setup before all the connection construction of the apparatus 101, the hot-water supply machine 102, and the remote control 103 was completed, [ a network connection setting worker ] From the network setting button currently displayed on the displaying means 114 by instructions of the remote control control means 113, a network setup can be first performed in operating the network setting means 111. If the remote control control means 113 operates the displaying means 114 and the remote control side means of communication 105, and performs a network setup based on a worker's directions and a setup is completed, the completion information transmission means 112 of a setting will memorize completion of a network setup. For example, in a network setup, a setup of whether an IP address is considered as the fixation IP or to set up by DHCP is begun, and a subnet mask setup, a DNS setup, a gateway setup, a connection place server address setup, etc. are performed. Then, when connection of the apparatus 101, the hot-water supply machine 102, and the remote control 103 is



completed, [ an apparatus installation operation company ] The apparatus setting means 110 is operated through the displaying means 114, and a setup of the interface displayed on the remote control 103 and the test run which checks that hot-water supply operation by the operation is performed normally are performed. Under the present circumstances, the apparatus 101, the hot-water supply machine 102, and the remote control 103 perform operation directed by performing communication between apparatus through the means of communication 107 between apparatus side apparatus, the means of communication 108 between hot-water supply machine side apparatus, and the means of communication 109 between remote control side apparatus, respectively.

[0021]

If an apparatus setup is completed, the completion information transmission means 112 of a setting will memorize the completion of an apparatus setting. The completion information transmission means 112 of a setting will transmit the completion information of a setting to the server 104 through the remote control side transmitting means 105 and the server side means of communication 106, if it checks that both a network setup and an apparatus setup have been completed. In the server 104, the network address of the remote control 103 obtained here and the information on the connected apparatus are memorized, and the offer of information to a user, etc. are performed through the failure diagnosis and the remote control 103 of apparatus.

[0022]

Although a setup by the network setting means 111 was completed previously now and the case where the apparatus setting means 110 was performed next was described, It does not depend in order of a setup, but the completion information transmission means 112 of a setting will transmit the completion information of a setting to the server 104, if it checks that both of setup of the apparatus setting means 110 and the network setting means 111 has been completed. The remote control control means 113 has the function to permit that ordinary users operate the apparatus 101 and the hot-water supply machine 102 through the displaying means 114, when a setup by the apparatus setting means 110 is completed, also before a setup of the network setting means 111 was completed. Thereby, even when network connection becomes impossible by a certain cause, even if it cannot use the function related to a network,

only the function of the apparatus 101 or the hot-water supply machine 102 can be used.

[0023]

When the network setup is not completed, it may be made for it to turn out that a setup is incomplete at a glance by erasing the display of the interface for operation displayed on the displaying means 114, or performing a use improper display.

[0024]

When the apparatus setup is not completed, it may be made for it to turn out that a setup is incomplete at a glance in a similar manner by erasing the display of the interface for operation displayed on the displaying means 114, or performing a use improper display.

[0025]

When [ as mentioned above, ] the completion of a setting of the apparatus setting means 110 and the network setting means 111 is supervised and both setup is completed by the completion information transmission means 112 of a setting, The remote control system which can be worked independently by each setting worker in operating so that the completion of a setting may be transmitted to the server 104 can be provided.

[0026]

When both setup is completed at this time, it may display having transmitted the completion of a setting to the server on the displaying means of a remote control, and a server may transmit an inquiry to a hot-water supply machine remote control system, when not receiving the signal of the completion of a setting by \*\*\*\*\*. Two or more hot-water supply machine remote control systems are especially connected to the server, An information signal may be transmitted to a hot-water supply machine remote control system, another displaying means, etc. from a server at the time of un-receiving the signal of the completion of a setting from a small number of hot-water supply machine remote control system, and it may demand a check from a user, an installation construction person, etc. having received the signal of the completion of a setting from other hot-water supply machine remote control systems.

[0027]

In this example, although explained considering the displaying means 114 as a touch panel in which a display and an operation receptionist are possible, an operation receptionist may use another means.

[0028]

(Working example 2)

Drawing 2 shows the block diagram of the remote control system in the 2nd working example of this invention. As for an attestation character string recognition means and 203, in drawing 2, 201 is [ the remote control side encryption and a decoding means, and 205 ] attestation character string recognition means a server control means and 204 the server side encryption and a decoding means, and 202. This composition is easily realizable for encryption and a decoding method 201-205 using SSL using a microcomputer by using User-Agent of a http protocol for presentation and recognition of an attestation character string.

[0029]

Hereafter, operation of this example is explained. When the remote control 103 connects with the server 104, the server side encryption and the decoding means 201, and the remote control side encryption and a decoding means 204 first exchange the wording-of-a-telegram conversion key used for encryption and a decoding through the server side means of communication 106 and the remote control side means of communication 105. At the time of wording-of-a-telegram transmission and reception, encryption communication is established by using the wording-of-a-telegram conversion key exchanged here. If encryption communication is established, the server control means 203 will require the attestation character string for proving that it is communication to the server 104 from the remote control 103 from the remote control control means 113. The remote control control means 113 will submit a predetermined character string by the attestation character string presentation means 205, if this attestation character string demand is received. Since it is submitted after encryption communication is established by encryption and a decoding means and the 3rd person cannot see this character string even if it is the information to which the attestation character string was fixed at this time, it can be used as a simple authentication means. Attestation between the remote control 103 and the server 104 is completed, and communication is started because the server control means 203 attests the submitted character string using the attestation character string recognition means 202. In this composition, when the completion information transmission means 112 of a setting transmits the completion of a setting to a server, it communicates through the remote

control side encryption and the decoding means 204. Thereby, it can protect that the completion communication of a setting with the server 104 is passed from information machines and equipment, such as a personal computer, for the mischievous purpose.

[0030]

With the attestation character string presentation means 205 for which it is shown that it is communication from a remote control after establishing encryption communication by encryption and the decoding means 201,204, [ as mentioned above, the thing for which it is notified to the server 104 that it is communication from a remote control ] It can protect that fake information is passed from a personal computer etc. easily.

[0031]

Although this example explained to the attestation character string presentation means 205 by using User-Agent, it cannot be overemphasized that the character string presentation method is not restricted to User-Agent.

[0032]

(Working example 3)

Drawing 3 shows the block diagram of the remote control system in the 3rd working example of this invention. As for an attestation information change means and 302, in drawing 3, the 2nd server side means of communication and 304 are the 2nd server control means the 2nd server and 303 301. To the attestation information change means 301 and the 2nd server control means 304, a microcomputer, This composition is easily realizable for the 2nd server 302 by using for a workstation and the 2nd server side means of communication 303 the LAN card which performs TCP/IP communication via the Internet etc.

[0033]

Hereafter, operation of this example is explained. In the composition of this example, the 2nd server 302 does not need attestation but is a free offer-of-information server with accessible anyone. When User-Agent is used for the attestation character string presentation in the attestation character string presentation means 205, a character string will be submitted to an offer-of-information server like the 2nd server 302 as User-Agent, and the character string used for attestation will be transmitted by \*\*\*\*.

Therefore, when the attestation information change means 301 supervises the server address of an access place and server access directions are

performed from a user, the character string which the attestation character string presentation means 205 submits is made to switch to the character string submitted from the character string for attestation to the usual information server in this composition. After that, communication is performed between through, the remote control 103, and the 2nd server 302 in the remote control side means of communication 105 and the 2nd server side means of communication 303.

[0034]

When [ as mentioned above, ] connecting with the 2nd server 301 that recognizes the connection of those other than the server for which the remote control 103 needs attestation, and does not need attestation by the attestation information change means 301, Attestation character string disclosure can be protected from the remote control 103 by connecting with a server, without submitting attestation information.

[0035]

(Working example 4)

Drawing 4 shows the block diagram of the remote control system in the 4th working example of this invention. In drawing 4, it is a 401 important-point attestation server update means. This composition is easily realizable by using nonvolatile memory for the attestation server update means 401 required.

[0036]

Hereafter, operation of this example is explained. the remote control control means 113 -- being periodical (it is 1 time per week) -- connection by encryption communication is made to the server 104. The address of the server which needs to prevent unlawful access at this time since the remote control control means 113 holds important information, When connecting with the server, the attestation server list required which saved the character string used for attestation of the remote control 103 is acquired from the server 104, and is registered into the attestation server update means 401 required. When connection with a server is made by a user's directions, it is checked whether the attestation information change means 301 has a server of a connection place in an attestation server list required with reference to the attestation server update means 401 required. Here, when it exists in an attestation server list required, the attestation information change means 301 provides the attestation character string obtained from the attestation server update means 401

required to the attestation character string presentation means 205. When this accesses to a server, the attestation character string which shows that it is access from the remote control 103 is submitted, and communication with a server is performed. When there is no server of a connection place in an attestation server list required, it communicates without enciphering.

[0037]

As mentioned above, an attestation server list required with required telling having connected with a server from the remote control 103 by the attestation server update means 401 required is downloaded from the server 104, When connecting with the server in this attestation server list required, the server which needs attestation information can be dynamically changed by submitting an attestation character string.

[0038]

[Effect of the Invention]

When [ as mentioned above, ] the completion of a setting of an apparatus setting means and a network setting means is supervised and both setup is completed by the completion information transmission means of a setting, The remote control system which can be worked independently by each setting worker in operating so that the completion of a setting may be transmitted to a server can be provided.

[Brief Description of the Drawings]

[Drawing 1] The block diagram showing the composition of the remote control system which is the 1st working example of this invention

[Drawing 2] The block diagram showing the composition of the remote control system which is the 2nd working example of this invention

[Drawing 3] The block diagram showing the composition of the remote control system which is the 3rd working example of this invention

[Drawing 4] The block diagram showing the composition of the remote control system which is the 4th working example of this invention

[Drawing 5] The block diagram showing the composition of the remote control system which is a conventional example

[Explanations of letters or numerals]

101 Apparatus

102 Hot-water supply machine

103 Remote control

104 Server

105 Remote control side means of communication  
106 Server side means of communication  
107 Means of communication between apparatus side apparatus  
108 Means of communication between hot-water supply machine side apparatus  
109 Means of communication between remote control side apparatus  
110 Apparatus setting means  
111 Network setting means  
112 Completion information transmission means of setting  
113 Remote control control means  
114 Displaying means  
201 Server side encryption and decoding means  
202 Attestation character string recognition means  
203 Server control means  
204 Remote control side encryption and decoding means  
205 Attestation character string presentation means  
301 Attestation information change means  
302 2nd server  
303 The 2nd server side means of communication  
304 2nd server control means  
401 Attestation server update means required  
501 Apparatus  
502 Hot-water supply machine  
503 Remote control  
504 Server  
505 Telephone line network

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#### [Brief Description of the Drawings]

[Drawing 1] The block diagram showing the composition of the remote control system which is the 1st working example of this invention

[Drawing 2] The block diagram showing the composition of the remote control system which is the 2nd working example of this invention

[Drawing 3] The block diagram showing the composition of the remote control system which is the 3rd working example of this invention

[Drawing 4] The block diagram showing the composition of the remote control system which is the 4th working example of this invention

[Drawing 5] The block diagram showing the composition of the remote control system which is a conventional example

[Explanations of letters or numerals]

101 Apparatus

102 Hot-water supply machine

103 Remote control

104 Server

105 Remote control side means of communication

106 Server side means of communication

107 Means of communication between apparatus side apparatus

108 Means of communication between hot-water supply machine side apparatus

109 Means of communication between remote control side apparatus

110 Apparatus setting means

111 Network setting means

112 Completion information transmission means of setting

113 Remote control control means

114 Displaying means

201 Server side encryption and decoding means

202 Attestation character string recognition means

203 Server control means

204 Remote control side encryption and decoding means

205 Attestation character string presentation means

301 Attestation information change means

302 2nd server

303 The 2nd server side means of communication

304 2nd server control means

401 Attestation server update means required

501 Apparatus

502 Hot-water supply machine

503 Remote control

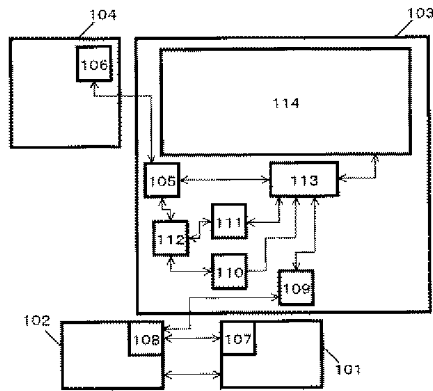
504 Server

505 Telephone line network

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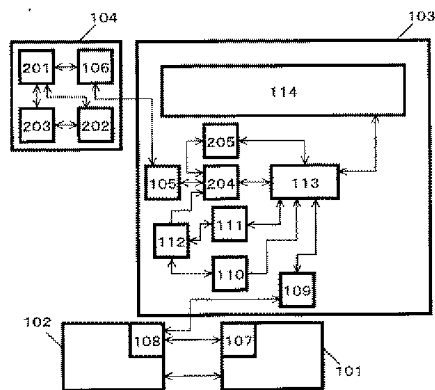
[Drawing 1]





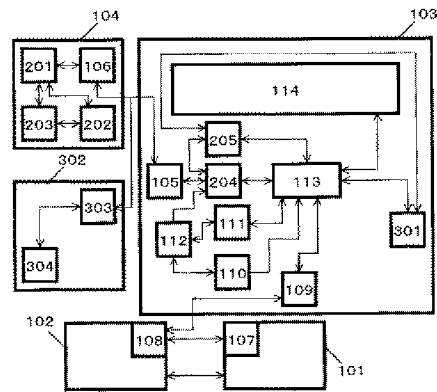
- |                  |                |
|------------------|----------------|
| 101 機器           | 110 機器設定手段     |
| 102 給湯器          | 111 ネットワーク設定手段 |
| 103 リモコン         | 112 設定完了情報送信手段 |
| 104 サーバ          | 113 リモコン制御手段   |
| 105 リモコン側通信手段    | 114 表示手段       |
| 106 サーバ側通信手段     |                |
| 107 機器側機器間通信手段   |                |
| 108 給湯器側機器間通信手段  |                |
| 109 リモコン側機器間通信手段 |                |

[Drawing 2]



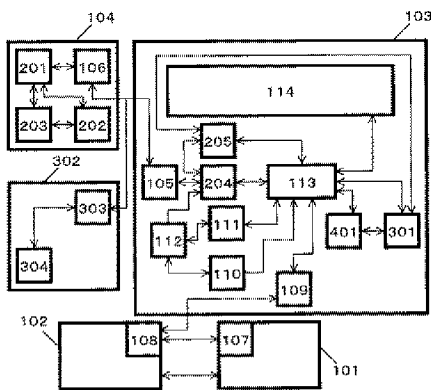
- |                  |                    |
|------------------|--------------------|
| 101 機器           | 110 機器設定手段         |
| 102 給湯器          | 111 ネットワーク設定手段     |
| 103 リモコン         | 112 設定完了情報送信手段     |
| 104 サーバ          | 113 リモコン制御手段       |
| 105 リモコン側通信手段    | 114 表示手段           |
| 106 サーバ側通信手段     | 201 サーバ側暗号化・復号化手段  |
| 107 機器側機器間通信手段   | 202 認証文字列認識手段      |
| 108 給湯器側機器間通信手段  | 203 サーバ制御手段        |
| 109 リモコン側機器間通信手段 | 204 リモコン側暗号化・復号化手段 |
|                  | 205 認証文字列認識手段      |

[Drawing 3]



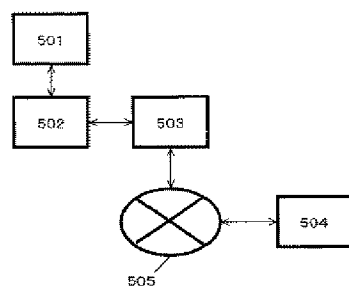
- |                  |                   |
|------------------|-------------------|
| 101 機器           | 113 リモコン制御手段      |
| 102 給湯器          | 114 表示手段          |
| 103 リモコン         | 201 サーバ制御号化・復号化手段 |
| 104 サーバ          | 202 認証文字列認識手段     |
| 105 リモコン側通信手段    | 203 サーバ制御手段       |
| 106 サーバ側通信手段     | 204 リモコン側号化・復号化手段 |
| 107 機器側機器間通信手段   | 205 認証文字列認識手段     |
| 108 給湯器側機器間通信手段  | 301 認証情報切換手段      |
| 109 リモコン側機器間通信手段 | 302 第2のサーバ        |
| 110 機器設定手段       | 303 第2のサーバ側通信手段   |
| 111 ネットワーク設定手段   | 304 第2のサーバ制御手段    |
| 112 設定完了情報送信手段   |                   |

[Drawing 4]



- |                  |                   |
|------------------|-------------------|
| 101 機器           | 113 リモコン制御手段      |
| 102 給湯器          | 114 表示手段          |
| 103 リモコン         | 201 サーバ制御号化・復号化手段 |
| 104 サーバ          | 202 認証文字列認識手段     |
| 105 リモコン側通信手段    | 203 サーバ制御手段       |
| 106 サーバ側通信手段     | 204 リモコン側号化・復号化手段 |
| 107 機器側機器間通信手段   | 205 認証文字列認識手段     |
| 108 給湯器側機器間通信手段  | 301 認証情報切換手段      |
| 109 リモコン側機器間通信手段 | 302 第2のサーバ        |
| 110 機器設定手段       | 303 第2のサーバ側通信手段   |
| 111 ネットワーク設定手段   | 304 第2のサーバ制御手段    |
| 112 設定完了情報送信手段   | 401 要認証サーバ更新手段    |

[Drawing 5]



501 機器  
502 給湯器  
503 リモコン  
504 サーバ  
505 電話回線網

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[Translation done.]